#### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference F6P1-0185	FOR FURTHER ACTION	See item 4 below				
International application No. PCT/JP2004/007616	International filing date (day/month/year) 02 June 2004 (02.06.2004)	Priority date (day/month/year) 29 July 2003 (29.07.2003)				
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237						
Applicant ORGANO CORPORATION						

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).						
2.	This REPORT consists of a total of 4 sheets, including this cover sheet.						
	In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.						
3.	This report contains indications relating to the following items:						
	Box No. I	Basis of the report					
	Box No. Π	Priority	riority				
	Box No. III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability						
	Box No. IV	Lack of unity of invention					
	Box No. V		Article 35(2) with regard to novelty, inventive step or industrial dexplanations supporting such statement				
	Box No. VI Certain documents cited						
	Box No. VII	Certain defects in the international application					
	Box No. VIII	Certain observations on th	ne international application				
4.	4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).						
			Date of issuance of this report 22 May 2006 (22.05.2006)				
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland		ombettes	Authorized officer  Yoshiko Kuwahara				
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Form PCT/IB/373 (January 2004)

#### PATENT COOPERATION TREATY

TRANSLATION From the INTERNATIONAL SEARCHING AUTHORITY To: WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1) Date of mailing (day/month/year) Applicant's or agent's file reference FOR FURTHER ACTION F6P1-0185 See paragraph 2 below Priority date (day/month/year) International application No. International filing date (day/month/year) PCT/JP2004/007616 02.06.2004 29.07.2003 International Patent Classification (IPC) or both national classification and IPC Applicant ORGANO CORPORATION This opinion contains indications relating to the following items: Box No. I Basis of the opinion Box No. II Priority Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. IV Lack of unity of invention Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial Box No. V applicability; citations and explanations supporting such statement Box No. VI Certain documents cited Box No. VII Certain defects in the international application Box No. VIII Certain observations on the international application **FURTHER ACTION** If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220. For further details, see notes to Form PCT/ISA/220.

Authorized officer

Telephone No.

Name and mailing address of the ISA/JP

Facsimile No.

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/007616

Box	c No. 1	Basis of this opinion
1.		h regard to the language, this opinion has been established on the basis of the international application in the language in which it was I, unless otherwise indicated under this item.
		This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under
		Rule 12.3 and 23.1(b)).
2.		h regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed action, this opinion has been established on the basis of:
	a.	type of material
		a sequence listing
		table(s) related to the sequence listing
	b.	format of material
		in written format
		in computer readable form
	c.	time of filing/furnishing
		contained in the international application as filed.
		filed together with the international application in computer readable form.
		furnished subsequently to this Authority for the purposes of search.
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3.	Ш	In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4.	Ado	litional comments:
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### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/007616

Box No. V Reasoned statement under R citations and explanations su			r Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; supporting such statement		
1.	Statement				
	Novelty (1	N)	Claims	1-5	YES
			Claims		NO
Inventive step (IS)		Claims	4,5	YES	
			Claims	1-3	NO
	Industrial	applicability (IA)	Claims	1-5	YES
			Claims		NO
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2. Citations and explanations:

Document 1: JP 2002-35527 A (Japan Atomic Energy Research Institute), 05 February 2002 Document 2: JP 47-48107 B1 (Esson Research and Engineering Co.), 04 December 1972

The inventions of claims 1-3 do not appear to involve an inventive step based on documents 1 and 2 cited in the ISR.

Document 1 describes a gas separation unit for separating each specific gas from a gas to be treated containing a plurality of specific gases, wherein a gas to be treated is caused to pass through a filler in a column to separate each specific gas chromatographically from the gas to be treated.

A gas separation unit for separating each specific gas from a gas to be treated containing a plurality of specific gases, wherein a plurality of columns having filled therein different absorbents from one another are series connected, or different absorbents are filled in one column, to cause the gas to be treated sequentially pass through the plurality of absorbents is a constitution commonly known to a party skilled in the art as also described in document 2; therefore, for the gas separation unit described in document 1, adopting the constitution described in document 2 to configure the invention so as to cause a gas to be treated to sequentially pass through a plurality of absorbents would be easy for a party skilled in the art.

Also, the gas separation unit described in document 1 is such that a PFC gas discharged in a semiconductor manufacturing step is made to serve as a specific gas, and the gas to be treated contains a nitrogen gas as other gas.

To the inventions relating to claims 4 and 5, the point of using zeolite and activated carbon as a filler for separating a specific gas containing  $NF_3$ ,  $CF_4$ , and  $C_2F_6$  is neither described nor suggested in any of the documents cited in the ISR; nor would they be obvious to a party skilled in the art.